

CLAIMS

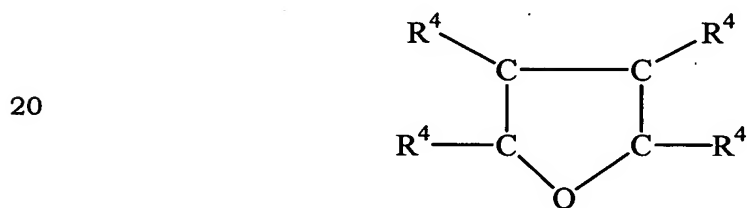
What is claimed is:

- 5 1. A film prepared from a urea/urethane polymer comprising
 (a) repeating units derived from a hydroxy-terminated copolymer prepared
 from tetrahydrofuran and one or both of an alkylene oxide and a cyclic
 acetal; and (b) repeating units derived from a polyisocyanate;

 wherein the urea/urethane polymer contains less than about
 10 2 mole percent of urea units described by the formula $-R - N(R^2) - C(O) -$
 $N(R^2) - R^1 -$;

 wherein R is an aromatic hydrocarbon radical, R^1 is an
 aliphatic hydrocarbon radical, and R^2 is H or an amide group that is
 described by the formula $-C(O) - N(R^2) - R -$; and

15 wherein the tetrahydrofuran is described by the formula



25 in which any one of the R^4 's may be a C_1 to C_4 alkyl radical with the
 remaining R^4 's being hydrogen.

2. A film according to Claim 1 wherein the polyisocyanate is
 selected from the group consisting of toluene diisocyanate, methylene
 diphenyldiisocyanate and polymethylene polyphenylisocyanate.

- 30 3. A film according to Claim 1 wherein the alkylene oxide is
 selected from the group consisting of 1,2-propylene oxide and ethylene
 oxide.

- 35 4. A film according to Claim 1 wherein the alkylene oxide is
 ethylene oxide.

5. A film according to Claim 1 wherein each R⁴ in the tetrahydrofuran is hydrogen.

6. A film according to Claim 1 wherein each R⁴ in the tetrahydrofuran is hydrogen, the hydroxy-terminated copolymer is prepared from an alkylene oxide, and the alkylene oxide is ethylene oxide.

7. A film according to Claim 1 wherein the urea/urethane polymer contains less than about 1 mole percent of the described urea units.

8. A film according to Claim 1 wherein the urethane polymer further comprises repeating units derived from an ionic compound or a potentially ionic compound.

9. A film according to Claim 1 that is prepared from an aqueous dispersion of the urea/urethane polymer of Claim 1 and a surfactant.

10. A film prepared from an ionomeric urea/urethane polymer comprising (a) repeating units derived from an aliphatic polyether polyol having a molecular weight of about 700 to about 1500, and (b) repeating units derived from a polyisocyanate,

wherein the urea/urethane polymer contains less than about 2 mole percent of urea units described by the formula $-R - N(R^2) - C(O) - N(R^2) - R^1 -$;

wherein R is an aromatic C₆ - C₂₀ hydrocarbon radical, R¹ is an aliphatic C₁ - C₂₀ hydrocarbon radical, and R² is H or an amide group that is described by the formula $-C(O) - N(R^2) - R -$.

11. A film according to Claim 10 which comprises repeating units derived from an ionic compound or a potentially ionic compound.

12. A film according to Claim 11 wherein the ionic compound or potentially ionic compound comprises a hydroxy-carboxylic acid of the general formula $(HO)_x R^7 (COOH)_y$, wherein R⁷ represents a straight or branched hydrocarbon radical containing 1 to 12 carbon atoms, and x and y each independently represents values from 1 to 3.

13. A film according to Claim 11 wherein the ionic compound or potentially ionic compound comprises 2,2'-dimethanolpropionic acid.

5

14. A film according to Claim 10 wherein the polyisocyanate is selected from the group consisting of toluene diisocyanate, methylene diphenyldiisocyanate and polymethylene polyphenylisocyanate.

10

15. A film according to Claim 10 wherein the polyether polyol is described by the formula $\text{HO} - [(\text{CR}^5\text{H})_m - \text{O}]_n - \text{H}$, wherein R^5 is hydrogen, a halogen or a C_1 to C_4 alkyl radical; m is 3 or 4; and n is in the range of about 8 to about 20.

15

16. A film according to Claim 15 wherein R^5 is hydrogen.

17. A film according to Claim 10 wherein the polyether polyol has a molecular weight in the range of about 900 to about 1150.

20

18. A film according to Claim 10 wherein the urea/urethane polymer contains less than about 1 mole percent of the described urea units.

25

19. A film according to Claim 10 that is prepared from an aqueous dispersion of the urea/urethane polymer of Claim 10 and a surfactant.

30

20. A film prepared from an ionomeric urea/urethane polymer comprising (a) repeating units derived from an aliphatic polyester polyol, and (b) repeating units derived from a polyisocyanate, wherein the urea/urethane polymer contains less than about 2 mole percent of urea units described by the formula $-\text{R} - \text{N}(\text{R}^2) - \text{C}(\text{O}) - \text{N}(\text{R}^2) - \text{R}^1$;

35

wherein R is a $\text{C}_6 - \text{C}_{20}$ aromatic hydrocarbon radical, R^1 is a $\text{C}_1 - \text{C}_{20}$ aliphatic hydrocarbon radical, and R^2 is H or an amide group that is described by the formula $\text{C}(\text{O}) - \text{N}(\text{R}^2) - \text{R}$.

21. A film according to Claim 20 which comprises repeating units derived from an ionic compound or a potentially ionic compound.

22. A film according to Claim 21 wherein the ionic
5 compound or potentially ionic compound comprises a hydroxy-carboxylic acid of the general formula $(\text{HO})_x\text{R}^7(\text{COOH})_y$, wherein R^7 represents a straight or branched hydrocarbon radical containing 1 to 12 carbon atoms, and x and y each independently represents values from 1 to 3.

10 23. A film according to Claim 21 wherein the ionic compound or potentially ionic compound comprises 2,2' dimethanolpropionic acid.

24. A film according to Claim 20 wherein the polyisocyanate
15 is selected from the group consisting of toluene diisocyanate, methylene diphenyldiisocyanate and polymethylene polyphenylisocyanate.

25. A film according to Claim 20 wherein the polyester
20 polyol is a dihydroxy-terminated polymer selected from the group consisting of an ethylene adipate, a butylene adipate, an ethylene/butylene adipate, and mixtures thereof.

26. A film according to Claim 20 wherein the urea/urethane
25 polymer contains less than about 1 mole percent of the described urea units.

27. A film according to Claim 20 that is prepared from an
aqueous dispersion of the urea/urethane polymer of Claim 20 and a
30 surfactant.

28. A film according to Claims 1, 10 and 20 that is
fabricated in the form of a glove.

29. A glove according to Claim 28 wherein the glove is not
35 perforated or broken at the point of contact between the thumb and forefinger after the thumb and forefinger have dipped in isopropyl alcohol and rubbed together for a time of about 30 to about 60 seconds.